

What is claimed is :

1. A method for preparing cellulose ethers by dispersing caustic soda into pulverized celluloses and injecting an etherifying agent, wherein the method
5 comprises steps of:

(a) performing a primary reaction in the condition of gradually increasing temperature ranging from 40 to 60°C for 10 to 60 min after adding 0.01-3.0 parts by weight for 1 part by weight of cellulose;

10 (b) performing a secondary reaction in the condition of gradually increasing temperature ranging from 45 to 75°C for 60 to 180 min; and

(c) performing a tertiary reaction in the condition of gradually increasing temperature ranging from 80 to 90°C for 60 to 180 min,

15 thereby producing fine powdered cellulose..

2. The method of claim 1, wherein the reaction temperatures of the primary, secondary and tertiary reactions are ranging from 40 to 50°C, 55 to 65°C, and 85 to 90°C, respectively.

20 3. The method of claim 1, wherein the etherifying agent is alkyleneoxide or alkylhalide.

4. The method of claim 3, wherein the alkyleneoxide has carbon atoms ranging
25 from 2 to 4, and the alkylene halide has carbon atoms ranging from 1 to 5.

5. The method of claim 1, which further comprises injecting a diluent gas before adding an etherifying agent.

5 6. The method of claim 5, wherein the diluent gas is at least one ether compound(s) selected from dimethylether and diethylether.

7. The method of claim 5 or 6, wherein the diluent gas is injected less than 2.5 parts by weight for 1 part by weight of cellulose, and it is preferable not to use a
10 diluent gas to produce cellulose ether with improved quality.

8. Cellulose ether prepared by the method of claim 1, wherein the cellulose ether has a particle distribution rate of greater than 99% for the particles of less than 100 mesh in size.

15 9. A method for preparing fine powdered cellulose ether comprising the steps of

a) subjecting pulverized celluloses to alkanization by treating with an alkalifying agent;

b) preparing a reaction mixture by adding 0.01 to 3.0 parts by weight of an
20 etherifying agent for 1 part by weight of cellulose to the alkanized cellulose;

c) subjecting the reaction mixture to the primary reaction in the condition of gradually increasing temperature ranging from 40 to 60°C for 10 to 60 min;

25 d) subjecting the primary reaction mixture to the secondary reaction in the

condition of gradually increasing temperature ranging from 45 to 75°C
for 60 to 180 min; and

- e) subjecting the secondary reaction mixture to the tertiary reaction in the
condition of gradually increasing temperature ranging from 80 to 90°C
for 60 to 180 min.

10. The method of claim 9, wherein the alkalifying agent is alkalimetal hydroxide
(caustic soda) in a solid or an aqueous solution state.

11. The method of claim 9, which further comprises injecting a diluent gas before
the step (b).

12. The method of claim 11, wherein the diluent gas is at least one ester
compound(s) selected from dimethylether and diethylether and is injected less
than 2.5 parts by weight for 1 part by weight of cellulose.